

QuickStudy**ENVIRONMENT**

GIVE BACK *to the* Planet



Sustainability

What Is Sustainability?

- Sustainability is the capacity to maintain a certain process or state. It is most frequently used in connection with biological and human systems.
 - In an ecological context, sustainability is the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future.
- Sustainability can be applied to almost every facet of life on Earth:
 - Different levels of biological organization, such as: wetlands, prairies and forests.
 - Human organization concepts, such as: eco-villages, eco-municipalities and sustainable cities.
 - Human activities and disciplines, such as: sustainable agriculture, sustainable architecture and renewable energy.
- For humans to live sustainably, the Earth's resources must be used at a rate in which they can be replenished.
- There is clear scientific evidence that humanity is living unsustainably, and that collective efforts are needed to return human use of natural resources to sustainable limits.
- Research on a global level into the issue has resulted in a number of key goals:
 - Providing future generations with the same environmental potential as presently exists.
 - Managing economic growth to be less resource-intensive and less polluting.
 - Integrating environmental, social and economic sectors when developing sustainability policies.
 - Maintaining and enhancing the adaptive capacity of the environmental system.
 - Preventing irreversible long-term damage to ecosystems and human health.
 - Avoiding unfair or high environmental costs on vulnerable populations.
 - Assuming responsibility for environmental effects that occur outside areas of jurisdiction.
- Encouraging people and communities to investigate problems and develop new solutions.

Poverty & Sustainability*

- Efforts to practice better sustainability within the environment also include aiding those who live in extreme poverty.
- The World Bank defines extreme poverty as not having enough income to meet the most basic needs for adequate food, water, shelter, clothing, sanitation, health care and education.
 - In 2008, 1.4 billion people around the world were living on less than \$1.25 per day.
 - South Asia is the region with the largest number of people living in extreme poverty—a total of 600 million, including 455 million in India.
- Aid for people suffering from extreme poverty usually comes in the form of financial donations and supplies, often provided through charitable campaigns run by groups that include the World Health Organization (WHO), GiveWell, Population Services International (PSI) and Oxfam International.
 - In addition, high school and college students are encouraged to volunteer in programs like Student Partnership Worldwide, which specializes in training young people to work on projects that improve the lives of rural people.



*Singer, Peter (2009). *The Life You can Save*. Random House, New York, NY.

Carbon Footprint*

- A carbon footprint is defined as the total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂) and calculated for the time period of a year. Examples include:
 - When one drives a car, the engine burns fuel, which creates a certain amount of CO₂, depending on its fuel consumption and the driving distance.
 - When a house is heated with oil, gas or coal, CO₂ is also generated; even if the house is heated with electricity, the generation of the electrical power may also have emitted a certain amount of CO₂.
 - Production of food and goods also emit some quantities of CO₂.

* From <http://timeforchange.org/what-is-a-carbon-footprint-definition>

Sustainability Tips*

- The 3Rs (**Reduce**, **Reuse** and **Recycle**) stipulate that people should buy less, reuse more, and recycle products that are no longer useful.
- For high school and college students, there are several ways to help the environment and follow the 3Rs without spending a lot of money or none at all.
- One method of **Reducing** is to consume fewer products, as a lot of energy and water are needed to grow or extract raw materials from the Earth, and the same is true for turning those raw materials into new products.
 - An alternative to buying new products is using programs that allow individuals to rent products from neighbors or anybody else nearby who is willing to make his/her items—ranging from lawnmowers to golf clubs—available.
- Students can further **Reduce** by cutting down on the amount of junk mail they receive; the average U.S. household receives about 100 pounds of junk mail per year.
 - Catalog Choice is a free service that lets individuals decline paper catalogs they no longer wish to receive, reducing the amount of unsolicited mail in one's mailbox.
 - The Direct Marketing Association (DMA) offers a free service to remove one's name from pre-screened credit offers in order to reduce unwanted mailings; call toll free 1-888-567-8688. The DMA's Mail Preference Service also allows people to receive more of the mail they want to receive and less of the mail they do not wish to receive by adding and removing their names to individual organizations.
- The concept of **Reuse** comes in handy for students who want to acquire new products without having to buy them, using one of the many Web sites available to trade new and used books, DVDs, CDs and video games with others.
- Instead of swapping, students can **Reuse** items that have been left by others who no longer need them.
 - Enroll in the Freecycle Network (www.freecycle.org) and join a local email group where people list used items that they no longer need and are willing to give away for free.
 - Local members who need or want the items—ranging from couches and cabinets to coffee tables and Cuisinarts—arrange to pick them up.
- Another way to **Reuse** is to buy refurbished products—items that were returned to stores within 30 days of purchase, had damaged packaging or a slight cosmetic defect, were used as in-store display items, or were simply overstocked.
 - Refurbished products also frequently sell for less than 50% of the retail price.
- Reuse** a canvas bag for shopping instead of relying on paper or plastic bags.
- In terms of **Recycle**, various companies are working to prevent the dumping of electronic items in landfills by taking used computers and electronics back while paying cash to those who send in the items.
 - Such an endeavor is especially important when it comes to cell phones; the Environmental Protection Agency (EPA) estimates that across the United States, more than 500 million old cell phones languish in desk drawers and other storage spots.
 - Disposing of these devices properly is of vital environmental concern since they contain hazardous chemicals like arsenic and lead that can be released into the atmosphere.
- Recycle** is especially important in terms of plastic, paper, glass, cardboard and aluminum.
 - Residential communities that participate in the RecycleBank program receive a large RecycleBank garbage bin for all their recyclables.
 - When the recycling truck comes to collect the garbage inside the bin, it reads an embedded barcode that doubles as a participating resident's account number; it also scans the bin for weight and volume to get a sense of what is inside. The recyclables then go to a recycling center.
 - Residents can log in at www.recyclebank.com with their account number to see how much they have earned from recycling. That value can be redeemed at more than 300 RecycleBank retail partners.



* Dorfman, Josh (2009). *The Lazy Environmentalist on a Budget: Save Money. Save Time. Save the Planet*. Stewart, Tabori & Chang, New York, NY.

Water Conservation*

- The EPA estimates that the average American household of four uses about 146,000 gallons of water annually, or the equivalent of 100 gallons per day per person.
- The U.S. water footprint is 2,500 cubic meter per year per capita. A water footprint is defined as the total volume of freshwater that is used to produce the goods and services consumed by the individual or community, or produced by the business.
- A recent government study cited by the EPA reveals that at least 36 states anticipate water shortages on a local, regional, or statewide level by 2013.
- The EPA estimates that simple conservation techniques can help the average household reduce its yearly water and sewer bills by \$170.
 - A shower once a day can add up to 7,300 gallons per year. Installing a low-flow showerhead or a water-saving showerhead can reduce water usage by as much as 40%.
 - Standard kitchen and bathroom faucets flow at two gallons per minute. Install a WaterSense-certified faucet or an inexpensive faucet aerator to reduce the amount of water flow to only 1.5 gallons per minute while still delivering a powerful spray. Faucet brands that are WaterSense-certified can be found at www.epa.gov/watersense and aerators are available at local hardware stores.

* Dorfman, Josh (2009). *The Lazy Environmentalist on a Budget: Save Money. Save Time. Save the Planet*. Stewart, Tabori & Chang, New York, NY.

Used Textbooks & Buyback

- According to the National Center for Education Statistics, the average yearly cost of textbooks for a college student has grown to nearly \$1,000; purchasing used textbooks can reduce this expense to less than \$500 per year.
- Since it takes one tree just to produce approximately 11 books, used textbooks are also an eco-friendly alternative to purchasing new textbooks and then discarding them at the end of the term.
- Those who want to sell their textbooks for cash can take advantage of buyback programs, which are usually held by the bookstore where the textbooks were originally purchased. Such programs take place over the course of a few weeks at the end of the semester, or throughout the school year.
 - The amount offered will vary depending on circumstances such as current supply, professor need, and what edition is being sold.
 - Most schools will give anywhere from 25%-50% of the price paid for the book.



* From http://www.ehow.com/about_4702625_used-textbooks.html, campusgrotto.com/textbook-buyback.html

<http://www.>

Groups & Organizations Associated with Sustainability

Center for Environmental Citizenship (CEC)

- CEC is a national group founded by young activists in 1992 to encourage college students to be environmental citizens.
- CEC addresses how environmental changes can be made on a personal, local, national and global level.
- The group encourages participants to offset their carbon emissions, use solar panels and solar power in their own homes, and write to their senators and representatives asking for change.
- CEC Web site: www.envirocitizen.org

College and University Recycling Council (CURC)

- Formed in 1992 and serving as a technical council of the National Recycling Coalition, CURC is a network of campus-based recycling professionals.
- CURC's mission is to organize and support environmental program leaders at institutions of higher education in managing resource, recycling and waste issues.
- The council helps provide technical assistance, education and training; networking opportunities; and, an expanding member base.
- CURC Web site: <http://www.curc3r.org/>



National Recycling Coalition

Earth Island Institute

- Started in 1984, Earth Island Institute is a non-profit, public interest membership organization that supports people who are creating solutions to protect the planet.
- Earth Island serves as an incubator for start-up environmental projects, giving crucial assistance to groups and individuals with new ideas for promoting ecological sustainability. Since the institute was first founded, it has provided fiscal sponsorship to more than 100 projects around the globe.
- In addition to project support work, Earth Island:
 - Publishes the award-winning quarterly magazine Earth Island Journal.
 - Hosts the annual Brower Youth Awards, which highlights the accomplishments of young people working for sustainability and provides emerging leaders with mentoring resources.
 - Funds community-based coastal protection and wetland restoration efforts in Southern California.
- Earth Island Institute Web site: www.earthisland.org



Filter for Good

- Filter for Good is a program developed by water filtration company Brita and container manufacturer Nalgene in 2007 to address safe water and the waste created by disposable plastic bottles.
- The program asks those who participate to reduce their personal waste by giving up bottled water, even if it is just a few days each week; filtered water and reusable bottles are promoted as environmentally sound alternatives.
- Filter for Good Web site: www.filterforgood.com



Greenpeace

- Greenpeace is an international non-governmental organization, started in 1971, that focuses on the protection and conservation of the environment.
- The organization currently addresses many environmental issues, with a primary emphasis on efforts to stop global warming and the preservation of the world's oceans and ancient forests.
- In addition to conventional environmental organization methods, such as lobbying businesses and politicians and participating in international conferences, Greenpeace uses non-violent direct action in many of its campaigns.

GREENPEACE

- Greenpeace Web site: www.greenpeace.org

Kiva: Loans that Change Lives

- Kiva's mission is to connect people through lending for the sake of alleviating poverty.
- Kiva is the world's first person-to-person micro-lending Web site, empowering individuals to lend directly to unique entrepreneurs in the developing world.
- When you browse entrepreneurs' profiles on the site, choose someone to lend to, and then make a loan, you are helping a real person make great strides towards economic independence and improve life for themselves, their family, and their community.
- Throughout the course of the loan (usually 6-12 months), you can receive email journal updates and track repayments. Then, when you get your loan money back, you can relend to someone else in need.
- Kiva Web site: www.kiva.org



Oxfam International

- Originally founded in 1942, Oxfam International is a confederation of 13 organizations working with over 3,000 partners in more than 100 countries to find lasting solutions to poverty and injustice.
- Oxfam's program has three main points of focus:
 - Development work, which tries to lift communities out of poverty with long-term, sustainable solutions based on their needs.
 - Humanitarian work, which assists those immediately affected by conflict and natural disasters (often leading to longer-term development work), especially in the field of water and sanitation.
 - Lobbyist, advocacy and popular campaigning that tries to affect policy decisions on the causes of conflict at local, national and international levels.
- Oxfam also works on trade justice, fair trade, education, debt and aid, livelihoods, health, HIV/AIDS, gender equality, democracy and human rights, and climate change.
- Oxfam International Web site: www.oxfam.org



Union of Concerned Scientists (UCS)

- First organized in 1969, UCS is a science-based nonprofit group of more than 250,000 citizens and scientists working for a healthy environment.
- UCS combines independent scientific research and citizen action to develop practical solutions and to secure responsible changes in government policy, corporate practices and consumer choices.
- UCS Web site: www.ucsusa.org



Worldwatch Institute

- Based in Washington, D.C., the Worldwatch Institute is an independent research organization that specializes in accessible, fact-based analysis of critical global issues. The organization was created in 1974.
- Worldwatch's mission is to generate and promote insights and ideas that empower decision makers to build an ecologically sustainable society that meets human needs.
- The organization's research is disseminated in over 20 languages through print and online media. Its programs include those that center on building a low-carbon energy system, creating a healthy future for agriculture and developing a sustainable global economy.
- Worldwatch Institute Web site: www.worldwatch.org



25% OFF all QuickStudy products!

Enter code **FREEBIE25** at checkout.



Click here to claim your OFF 25%